

Berry Petroleum Company

Post Office Bin X
Taft, California 93268

(805) 769-8811

March 19, 1986

Mr. David Clark
California Division of Oil & Gas
4800 Stockdale Hwy. Suite 417
Bakersfield, CA 93309

Dear Mr. Clark:

Berry Petroleum Company (Successor to Berry Ventures) has applied for a Class II well aquifer exemption for the Olcese formation in Section 29, T27S, R27E, of the Poso Creek Field.

The Olcese is of Lower Miocene age and is structurally below the Fruitvale (middle Miocene) and the Santa Margarita (upper Miocene) zones which have both been granted this exemption and are currently utilized for disposal of produced oilfield water in the Poso Creek field. (see enclosed map and type log). The primary producing formation in the Poso Creek field are the Chanac and Basil Etchegoin sands which are of upper Miocene age and structurally above the Santa Margarita formation.

Produced waters from the Basil Etchegoin and Chanac zones will be injected into the Olcese if the exemption is granted. Previously submitted analysis of the Olcese water and the produced waters show that the injected fluids are of better quality than the Olcese water and will result in an actual upgrade of the zone water.

The completed interval in the Olcese zone is in a half graben between the Premier Fault to the West and the Poso Creek Fault to the East, the two significant geological features in the area (see enclosed cross section). The structural trends in the area are of a westerly dipping monoclinial feature which is broken into elongate N-S trending horst, graben or half-graben blocks. The Premier Fault trends NNW-SSE and is down thrown to the west. The position of this fault is mapped with considerable accuracy where it passes through the western portion of the Berry properties and in fact, intersects the proposed disposal well. The other significant fault feature in the area, the Poso Creek

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Fault, is down thrown to the SW and trends NW-SE. This fault was cut in the Getty Noriega #2 well to the SE of the Berry property and the Carissa #1 well which is nearly due East of the disposal well.

The above geological description and the attached cross sections, we believe, clearly demonstrate that water movement will be from west to east. Furthermore, this regional geological evidence demonstrates that the volumes of water that will be injected from the Berry Petroleum Company Newhope lease can never influence the ground waters to the east due to the sealing faults that prohibit its lateral migration. While we can not definitively prove that these faults are barriers to ground water movement, we can demonstrate that these faults are trapping faults with regard to hydrocarbons and certainly prevent the migration of oil. They most likely will confine the injected waters to the Olcese formation in the immediate area.


A study to determine the impact of widespread injection into the Olcese on the usable ground water is of such magnitude that it is not within the financial capability of a small independent producer. This independent producer is trying to eliminate surface sumps in conformance with existing regulations and has met the approval of the Department of Oil & Gas in several other leases where similar demands have been made. The geological evidence that we have compiled is compelling and it shows the migration of water from the Olcese to the ground water formation to be highly unlikely.

The Newhope #1 was drilled specifically as a disposal well at the encouragement of the Department of Oil & Gas, Water Quality Board and Bureau of Land Management. Berry Petroleum Company has invested to date in excess of \$375,000 in trying to comply with environmental regulations on this lease. To the benefit of the state and other producers, we have demonstrated that the Olcese is an ideal supplementary injection zone to the Santa Margarita.

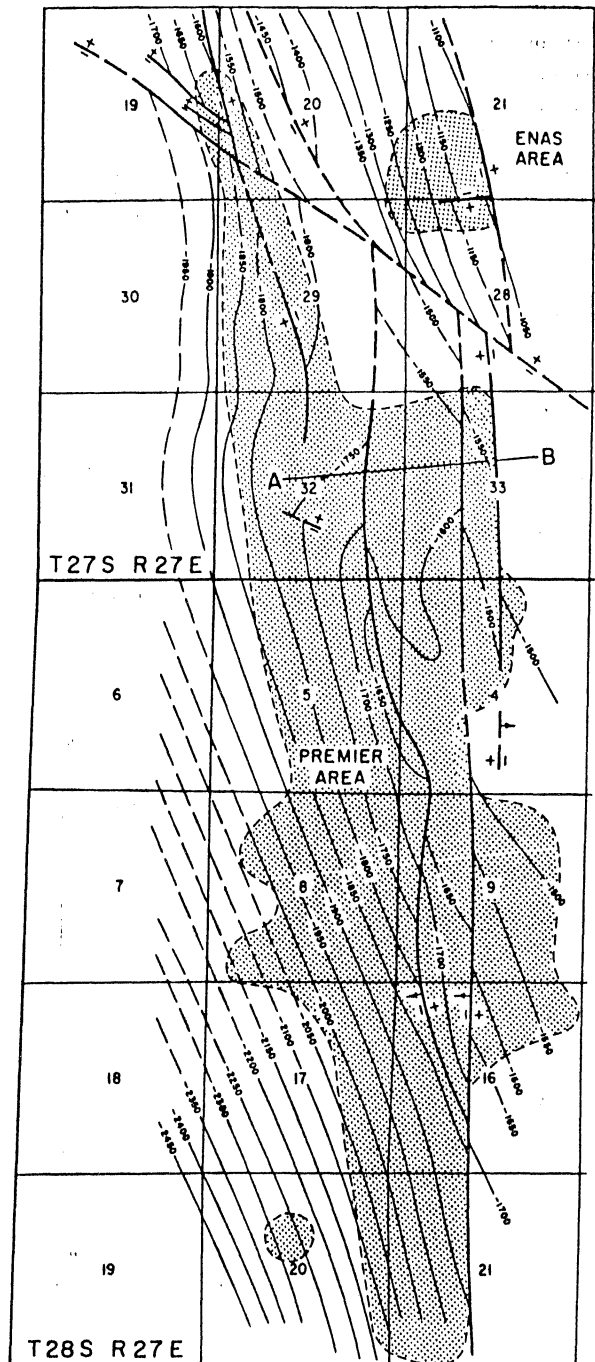
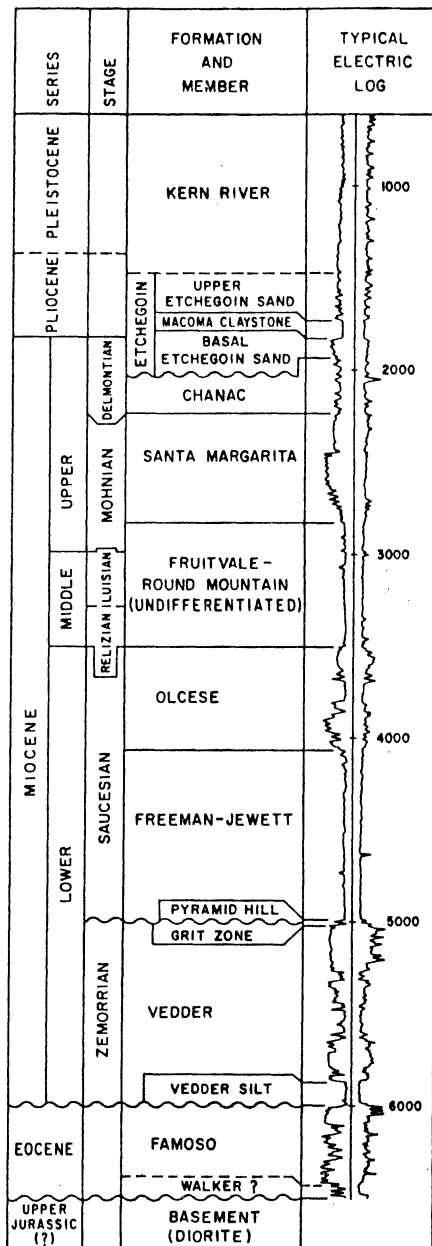
To require Berry Petroleum Company to isolate the Olcese formation will require substantial additional investments which are unavailable due to the present crude price. Already we have had to shut in many of the wells on this lease and it will impose a significant hardship if we are required to isolate the Olcese for injection purposes. We respectfully request the continued injection into both the Santa Margarita and the Olcese formations.

If we can answer any further questions regarding our request, please do not hesitate to contact me.

Yours truly,


Stan Webb
Production Manager

POSO CREEK OIL FIELD Enas & Premier Areas



CONTOURS ON BASE OF MACOMA CLAYSTONE

